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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/709,924	06/07/2004	Jen-Yao Hsu	13366-US-PA	3923
31561 7590 06/27/2007 JIANQ CHYUN INTELLECTUAL PROPERTY OFFICE 7 FLOOR-1, NO. 100 ROOSEVELT ROAD, SECTION 2 TAIPEI, 100 TAIWAN			EXAMINER ERDEM, FAZLI	
			ART UNIT 2826	PAPER NUMBER
			NOTIFICATION DATE 06/27/2007	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

USA@JCIPGROUP.COM.TW

## Office Action Summary

Application No.

10/709,924

Applicant(s)

HSU, JEN-YAO

Examiner

Fazli Erdem

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1, 2, 4, 5 and 15-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4, 5 and 15-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, 4, 5 and 15-19 rejected under 35 U.S.C. 102(b) as being anticipated by Tung (6,214,674).

Regarding Claim 1, Tung discloses a high voltage device suitable for low voltage applications where in Fig. 1D it is disclosed, a high-voltage metal-oxide-semiconductor (HV-MOS) device, comprising: a substrate 10, a gate dielectric layer 80 on the substrate; a gate 90 on the gate dielectric layer; a channel region in the substrate under the gate dielectric layer; two doped regions 120 as a source and a drain in the substrate beside the gate; a field isolation layer 70 between the gate and the two doped regions; a drift region left portion of element 100 in the substrate under the field isolation layer 70 located in one side of the at least one doped region 120, connecting with the channel region and the at least one doped region; and a modifying doped region in the substrate right side of the element 100, located in the other side of the at least one doped region 120 opposite to the drift region, wherein the drift region and the modifying doped region together completely surround the doped regions 110/120 and are doped with the same type of dopant.

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Regarding Claim 2, in Fig. 1D of Tung, modifying doped region, the right side portion of the element 100 is in the substrate located in the other sides of the two doped regions 110/120 opposite to the drift region (the left side portion of element 100)

Regarding Claim 4, the field isolation layer 70 is a FOX layer.

Regarding Claim 5, in Fig. 1D, Lung discloses a high-voltage metal-oxide-semiconductor (HV-MOS) device, comprising: a substrate 10 a gate dielectric 80 layer on the substrate; a gate 90 on the gate dielectric layer; a channel region in the substrate under the gate dielectric layer; two heavily doped regions 110/120 as a source and a drain in time substrate beside the gate, two lightly doped grade region 100 under and surrounding the two heavily doped regions 110/120 respectively; a field isolation layer 70 between the gate and time two heavily doped regions 110/120; a drift region (left portion of element 100) in the substrate under the field isolation layer located in one side of the at least one lightly doped grade region, and a modifying doped region (right portion of the element 100) in the substrate located in the other side of the at least one lightly doped grad reion 100 opposite to the drift region.

Regarding Claim 15, the modifying doped region is in the substrate located in the other sides of the two lightly doped grade regions opposite to the drift region.

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Regarding Claim 16, the HV-MOS device of claim 5, wherein the field isolation layer comprises a field oxide (.FOX) layer.

Regarding Claims 17 and 18, the HV-MOS device of claim 6, wherein a doping; concentration of the drift region and the modifying doped region ranges from  $5 \times 10^{15}/\text{cm}^3$  to  $5 \times 10^{17}/\text{cm}^3$ .

Regarding Claim 19, the modifying doped region is in the substrate located in the other sides of the two lightly doped grade regions opposite to the drift region.

### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fazli Erdem whose telephone number is (571) 272-1914. The examiner can normally be reached on M - F 8:00 - 5:00.

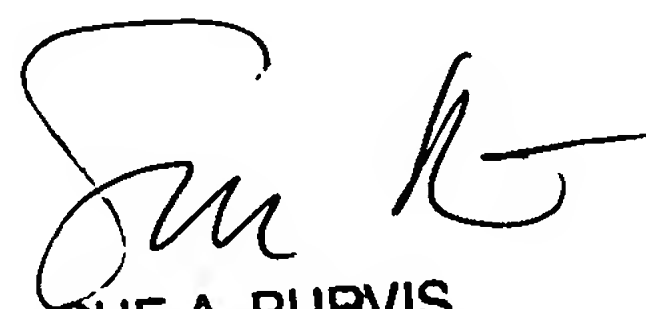
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sue Purvis can be reached on (571) 272-1236. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

FE

June 14, 2007

  
SUE A. PURVIS  
SUPERVISORY PATENT EXAMINER